TABLE OF CONTENTS.

MOTION FOR LEAVE TO FILE BRIEF AMICUS CURIAE ---------- 1

BRIEF AMICUS CURIAE OF THE FINNEY COMPANY SUPPORTING THE POSITION OF THE PETITIONER THAT THE ISBELL PATENT IN SUIT IS INVALID ---------- 5

Questions Presented ---------- 5

Statement of the Facts ---------- 7

Facts Relevant to Question I ---------- 7

Facts Relevant to Question II ---------- 15

Argument ---------- 20

Question I ---------- 20

Question II ---------- 25

Conclusion ---------- 32

TABLE OF AUTHORITIES.

Cases.

Chi K. Dien, Application of, 371 F.2d 886 (CCPA, 1967) ---- 22

Clinical Products, Limited v. Commissioner of Patents, 255 F. Supp. 151 (DC, DC, 1966) ---- 23

Cottier, et al. v. Stimson, et al., 20 Fed. 906 (Cir. Ct, D. Ore., 1884) ---- 26

Crossley, John, & Sons v. Hogg, 83 Fed. 488 (Cir. Ct., D. Mass., 1897) ---- 27

Finney Company, The, v. JFD Electronics Corp. and University of Illinois Foundation, Civil Action No. 65 C 671, United States District Court for The Northern District of Illinois, Eastern Division ---- 2

Gulliksen v. Halberg v. Edgerton v. Scott, 75 USPQ 252 (1937) ---- 27

Hamilton Laboratories, Inc. v. Massengill, 111 F.2d 584 (1940) ---- 28, 30

Hedman, et al. v. Commissioner of Patents, 253 F. Supp. 515 (DC, DC, 1966) ---- 23

I. C. E. Corporation, et al. v. Armco Steel Corporation, 250 F. Supp. 738 (1966) ---- 30

Indiana General Corp. v. Lockheed Aircraft Corp., 249 F. Supp. 809 (1966) ---- 30

LaMaur, Inc. v. DeMert & Dougherty, Inc., et al., 265 F. Supp. 961 (DC, N.D. Ill., 1965), aff'd. 152 USPQ 163 (7th Cir., 1966) ---- 23-24

Mandel Bros., Inc. v. Wallace, 335 U.S. 293 (1948) ---- 20, 21, 24, 25

Miegel and Verbanc, Application of, 404 F.2d 378 (CCPA, 1968) ---- 23

Moreton, Application of, 288 F.2d 940 (CCPA, 1961) ---------- 21, 22, 23, 24

Pantzer, Application of, 341 F.2d 121 (CCPA, 1965) 22

Tenney, Frank and Knox, In re, 254 F.2d 619 (1958) 29

Toledo Pressed Steel Co. v. Standard Parts, 307 U.S. 350 (1939) ---------- 14, 20

Tomlinson, Application of, 363 F.2d 928 (CCPA, 1966) ---------- 22, 23

United States v. Adams et al., 383 U.S. 39 (1966) -- 15

Wietzel et al., In re, 39 F.2d 669 (CCPA, 1930) ---- 22

Wilson, Application of, 368 F.2d 269 (CCPA, 1966) 22

Texts.

Robinson, "Patents," § 326, 327 (1890) ---------- 28

Statutes.

35 U.S.C. 102 ---------- 16, 19, 26, 30

35 U.S.C. 102(b) ---------- 5, 7, 25, 31, 32

35 U.S.C. 103 ---------- 5, 6, 7, 10, 20, 25, 32

In the Supreme Court of the United States

OCTOBER TERM, 1970.

No. 338.

BLONDER-TONGUE LABORATORIES, INC.,
Defendant and Counter Claimant-Appellant-Petitioner,

vs.

UNIVERSITY OF ILLINOIS FOUNDATION,
Plaintiff and Counterclaim Defendant-Appellee,
and
JFD ELECTRONICS CORPORATION,
Counterclaim-Defendant-Appellee, Respondents.

MOTION FOR LEAVE TO FILE BRIEF AMICUS CURIAE.

To the Honorable Chief Justice and Associate Justices of The Supreme Court of The United States:

The Finney Company, a manufacturer of radio and television antennas in Bedford, Ohio, respectfully moves for leave to file the annexed brief amicus curiae in support of a reversal of the decision of the United States Court of Appeals for the Seventh Circuit and of the decision below by the United States District Court for the Northern District of Illinois, Eastern Division, to the extent that those decisions found the Isbell patent in suit to be valid.

This case is now before the Supreme Court as a result of its granting of the petition of Blonder-Tongue Laboratories, Inc. (Defendant and Counter-Claimant-Appellant, below) for a writ of certiorari to the United States Court of Appeals for the Seventh Circuit. When grant-

ing that petition, the Supreme Court also granted a motion of The Finney Company for leave to file a brief amicus curiae annexed thereto in support of granting of the petition.

The Finney Company is the plaintiff in a pending declaratory judgment action seeking, *inter alia*, a judgment that the Isbell patent of the University of Illinois Foundation (the same Isbell patent involved in the above action) is invalid.[1] That declaratory judgment action is but one of several other pending suits involving the questions of validity and infringement of the Isbell patent.[2]

The further brief amicus curiae of The Finney Company, annexed hereto, is addressed in part to the merits of the particular issue of the litigation which its prior brief asked the Supreme Court to consider. In addition, however, the present brief is directed to the merits of another issue that is critical to the validity or invalidity of the Isbell patent in suit. It is believed that a ruling on both of those issues by the Supreme Court would create a better understanding of the law on those issues and a more consistent application of that law by the Federal trial and appellate courts, as well as insure a correct disposition in several other pending suits of the ultimate issue of validity of a patent that has been held valid below after a final decision of the Court of Appeals of the Eighth Circuit holding the same patent invalid.

Printing, filing, and service of the annexed brief have been completed as quickly as possible after the appendix and other record citations therein could be ascertained

---

[1] *The Finney Company v. JFD Electronics Corp. and University of Illinois Foundation*, Civil Action No. 65 C 671, United States District Court for the Northern District of Illinois, Eastern Division.

[2] Petition of Blonder-Tongue Laboratories, Inc., p. 9, note 2.

from the record as filed by the parties. Advance consent to the filing of such a brief having been refused by the University of Illinois Foundation (one of the Respondents), granting of this motion and consideration of the annexed brief are earnestly requested.

Respectfully submitted,

HAROLD F. MCNENNY,

JOHN F. PEARNE,

Attorneys for Amicus Curiae,
The Finney Company.

BRIEF AMICUS CURIAE OF THE FINNEY COMPANY SUPPORTING THE POSITION OF THE PETITIONER THAT THE ISBELL PATENT IN SUIT IS INVALID.

The Finney Company, as amicus curiae, respectfully supports the position of the Petitioner in this case insofar as it seeks a reversal of the decisions below on the issue of validity of the Isbell patent in suit No. 3,210,767 (PX 1, A. 399, R. 122).

The history of this case and the issues involved are sufficiently set forth in the Petitioner's brief.

QUESTIONS PRESENTED.

The Finney Company, as amicus curiae, respectfully requests the Supreme Court to direct its attention to two important questions of law involved in the decisions below and on which both of the courts below are believed to have erred in finding the Isbell patent in suit to be valid. Those two questions are:

Question I: Where logical exploration within known principles of the art achieves an unpredictable result, does the necessity of logical experimentation, in and of itself, negate obviousness under 35 U.S.C. 103?

Question II: Where, more than one year before the filing date of a patent, the patented invention was described in a printed publication available to persons in the art, upon request, in a university repository maintained and used for that purpose, does such publication fail to qualify under 35 U.S.C. 102(b) as a bar to the grant of a valid patent because—

a. the university repository may not have met some unspecified definition of a "genuine library," or

b. the person responsible for the operation of such repository failed to qualify as "truly a librarian," by some unspecified standard, or

c. despite the availability of the publication to persons in the art for a few days before the critical date, there was only a "rather remote possibility that a person knowing of the report might have asked for it and obtained a copy of it" during such a short period?

Question I, above, is the fundamental point of divergence of the respective, conflicting decisions of the Seventh and Eighth Circuit trial and appellate courts on the issue of validity of the Isbell patent. As will be developed in the correspondingly numbered section of the ensuing ARGUMENT, that question has been dealt with by the Supreme Court and other courts in numerous decisions during the last few decades, generally in a manner consistent with the decisions of the Eighth Circuit trial and appellate courts on the Isbell patent but contrary to the decisions of the Seventh Circuit trial and appellate courts with which we are here directly concerned. However, the Supreme Court has not ruled on this question since enactment of the present patent statute in 1952.

The decisions below not only depart from the law on this question as applied by prior federal court decisions, but are believed to depart from the obviousness test of patentability prescribed by 35 U.S.C. 103. Therefore, clarification of this aspect of the question of obviousness under 35 U.S.C. 103 should provide much needed guidelines for deciding similar questions in the future and,

particularly, in the several still pending suits on the same Isbell patent.

Question II, above, involving the requirements of a "publication" within the meaning of 35 U.S.C. 102(b), was an issue in the trial on the Isbell patent before the District Court of the Eighth Circuit, but was neither ruled upon by that court nor considered on appeal by the Eighth Circuit Court of Appeals in view of their disposition of the case by a holding that the Isbell patent is invalid for obviousness under 35 U.S.C. 103. However, this "publication" question was considered and ruled upon below by both the trial and appellate courts of the Seventh Circuit, but in a manner contrary to all known precedent involving similar facts. This will also be apparent from the correspondingly numbered section of the ensuing ARGUMENT. Accordingly, a ruling by the Supreme Court on this basic question of statutory construction is also important for insuring a proper application of the "publication" bar of 35 U.S.C. 102(b) in the future.

STATEMENT OF THE FACTS.

Facts Relevant to Question I.

As found by the trial courts in this and the related Eighth Circuit cases (A. 73-75, 103-105), the invention of the Isbell patent relates to so-called "broadband" radio and television antennas. The patented antenna consists of an array of interconnected elements, called "dipoles," that progressively decrease in length and spacing from one end to the other of the array. They are so connected, each to the next, that the array is unidirectional in operation. The progression of dipole lengths and spacings follows a so-called "log-periodic formula" (recently developed by the prior art as discussed below) which re-

quires that the length of each successive antenna element and of each successive space between elements be the same fraction of the preceding element length or element spacing, i.e., they all vary by the same fractional multiplier or "scale factor." Such proportioning of the array of dipoles is alleged in the patent to produce uniform performance "over any desired bandwidth" of broadcast frequencies, i.e., "frequency independent operation."

A dipole is a conventional, rod-like, antenna element of the prior art having a central gap that provides terminals or "feed points" for connecting the dipole, or a series of dipoles, to a receiver or transmitter. The tip-to-tip length of a dipole determines a narrow range of frequencies for which its response is optimum. It had sometimes been used in the generally equivalent form of an elongated loop, called a "folded dipole."

Long prior to Isbell's work, broadband antennas composed of similar arrangements of a number of dipole elements were old for covering moderate bandwidths, for example, the television low band (channels 2 to 6) or high band (channels 7 to 13). The dipoles were spaced apart, as required by their known interaction effect on one another, and they varied in lengths so that each would operate with optimum response at the frequency determined by its length to render the array as a whole responsive to all frequencies in the particular bandwidth to be covered.

The most pertinent of such prior art, broadband antennas, having dipoles of varying lengths and spacings, were the antennas of the Katzin patent No. 2,192,532 (DX 3, A. 477, R. 236) and the K.O. antenna (DX 4, A. 481, R. 236), the latter employing the same scheme for interconnecting (i.e. "feeding") the dipoles that is disclosed

and claimed by Isbell for obtaining unidirectional operation of the antenna (A. 61, 107-108). The K.O. antenna was not considered by the Patent Office.[1] Other prior art arrays of two or more dipoles similarly interconnected for unidirectional operation are shown in patents No. 1,-964,189 to Koomans, No. 2,105,569 to White et al., and No. 2,700,105 to Winegard, none of which was considered by the Patent Office.

The antenna of the Isbell patent in suit differed significantly from the multiple dipole antennas of such prior art only by the proportioning of the dipole lengths and spacings of the Isbell antenna according to the aforementioned log-periodic formula of the prior art (A. 61, 95). Thus, rather than being a pioneer, as Respondents have argued, Isbell merely applied a recently developed prior art formula to a particular class of prior art antennas for the same purpose that the formula had been previously employed.

In 1957, only shortly prior to Isbell's work on the invention of his patent in suit (completed before May 1959 as explained below), DuHamel and the same Isbell, working at the University of Illinois, published the first disclosure of so-called log-periodic antennas having frequency independent operation (i.e. uniform operation) over theoretically unlimited bandwidths. Those antennas were circularly curved tooth structures cut out of sheet metal. The lengths and spacings of the teeth varied progressively by a common multiplier or "scale factor" according to the so-called log-periodic formula.

Next, early in 1958, DuHamel and Ore published the results of their further work with log-periodic antenna

---

[1] As indicated by its omission from the list of references at the end of the Isbell patent (A. 403).

structures at Collins Radio Company (DX 6, R. 238).[2] The "Introduction" of this publication first described the prior work of DuHamel and Isbell, noting that the new results to be reported in this publication demonstrated that "the equi-complementary condition" originally believed necessary was "not always necessary," since several antennas to be disclosed deviated severely from that condition. They then made the following statement, of particular significance in this case, regarding the objectives of their work:

> *"A great number of logarithmically periodic antenna configurations are possible.* The investigation reported in this paper was conducted to study impedance, pattern, and polarization characteristics of *a variety of structures.* Another objective of the investigation was to devise practical forms of this type of antenna. Since large, circular tooth structures would be difficult to construct, *the possibility of simplifying this basic structure by straightening the teeth and by making wire approximations of the teeth was investigated and is reported in the following sections."* (Emphasis added)

This publication (DX 6), only briefly preceding Isbell's invention of the patent in suit, was the first disclosure of how the log-periodic principle could be applied to the proportioning of practical, wire or rod-type antennas to obtain varying degrees of frequency independence over any desired frequency range. It illustrated and described various forms of log-periodic antennas progressing in design toward the wire or rod-type antennas of the prior art.

Finally, a DuHamel and Ore patent No. 3,079,602

---

[2] Published March 31, 1958, more than one year before Isbell's filing date of May 3, 1960, so as to be prior art under 35 U.S.C. 103.

(DX 14, A. 510, R. 283), also standing as prior art herein against the Isbell patent in suit, disclosed the antennas of the above described publication and additional variants that still more closely approached (as explained below) the structure of the prior art, broadband, multiple dipole antennas mentioned above and the similar structure of the antennas of the Isbell patent. Nether the DuHamel and Ore publication nor this DuHamel and Ore patent was considered in the actual Patent Office prosecution of the Isbell patent in suit,[3] nor was the DuHamel and Ore patent considered by the Eighth Circuit courts.

The DuHamel and Ore publication (DX 6) showed a progression of designs of antennas in which upper and lower, planar structures were respectively inclined upwardly and downwardly from a feed point and diverged by an angle psi (ψ). The feed point was the forward end of the antenna, and the forward end of the antenna pointed toward the transmitter of a wave or signal to be received. The angle psi was varied from a disclosed minimum of 7° (table on p. 6) to a maximum of 180° (table on p. 4). The illustrated designs of the angularly disposed, upper and lower structures progressed from the original, curved-tooth, sheet metal structures of DuHamel and Isbell (Figure 1) through a number of similar, straight-tooth structures (Figures 2, 3, 6, and 8), to various non-complementary, wire or rod approximations of the sheet metal structures (Figures 9, 10, 12, and 15). (A. 483-491)

The DuHamel and Ore patent disclosed essentially the same progression of structures. However, it differed from their prior publication by disclosing (col. 2, lines 52-54) that the angle psi may be reduced to 0°. When the

[3] Note 14 of the decision by the trial court in the Eighth Circuit (A. 112-113) and the list of references at the end of the Isbell patent.

angle psi is 0°, the upper and lower structures in Figures 1-7, 13, and 15 of the patent are parallel and closely spaced. All of the forms of Figures 1-7, 13, and 15 of the patent, when the angle psi is 0°, differ from the Figure 2 form of the Isbell patent only in the form of the teeth, as DuHamel confirmed with reference to the antenna of Figure 5 of the patent (A. 287-288). DuHamel also confirmed that each triangular tooth of the antenna of Figure 5 of the patent would function similarly to the corresponding straight rod tooth of the Isbell patent "in the E plane or principle plane" of operation of the antennas (A. 288-293).

Thus, the only difference between the antennas of Figure 5 of the DuHamel and Ore patent (with the angle psi at 0° as disclosed) and Figure 2 of the Isbell patent is that Isbell used a single, straight rod (half of a conventional dipole) in place of each triangular element 51b, 51c, 51d, etc. of DuHamel and Ore. And as DuHamel acknowledged, the operation of the two types of elements is similar, and thus equivalent.

In identifying the prior art, the Seventh Circuit Court of Appeals first referred only to the art before the Eighth Circuit courts (A. 60) and later mentioned the DuHamel and Ore patent only in passing (A. 63), as the trial court below had done (A. 79), apparently not recognizing how closely the antenna of Figure 5 of that patent approached the antenna of the Isbell patent in both structure and operation of the active elements.[4]

The Courts of Appeals of the Seventh and Eighth Circuits both recognized in their decisions that the only significant difference between the antennas of the Isbell

---

[4] This important and evident oversight by both of the trial and appellate courts below reflects seriously on the cogency of their treatment of the question of obviousness, as explained in the ensuing ARGUMENT herein.

patent and the broadband, multiple dipole, prior art antennas (such as the K.O. antenna, DX 4, or antennas of the Katzin patent, DX 3) is that, according to the Isbell patent, the lengths and spacings of his conventional dipoles vary according to the prior art log-periodic formula (A. 61, 95). Both of those appellate courts referred to Jasik's Antenna Engineering handbook which explained that the Isbell antenna was merely an adaptation of the log-periodic scaling principle to prior art broadband antennas for the purpose of achieving more uniform (i.e., more frequency independent) performance over a frequency band (A. 63, 95).

As both of those appellate courts and the Seventh Circuit trial court found, the frequency independent operation of the antenna of the Isbell patent, or any log-periodic antenna, was unpredictable (App. 62, 78, 96). However, as both appellate courts indicated by quotations from the Jasik handbook, whether or not a particular antenna, proportioned according to the log-periodic formula, would be frequency independent in its operations was readily determinable "by logical experimental methods" (App. 62, 99).

It is significant to note that the Isbell patent, itself, and the records of the Seventh and Eighth Circuit cases contain no assertion or evidence that the antennas of that patent are any more frequency independent than the similar prior art antennas of DuHamel and Ore. Thus the difference between the claims of the Isbell patent and the closest prior art (such difference being what Isbell actually patented) produced no new or surprising results.

The trial and appellate courts below both relied upon testimony of Dr. DuHamel about his initial surprise on learning of the Isbell invention (A. 64, 78-79). As quoted by that Court of Appeals, DuHamel stated that he was

initially "surprised at the simplicity of the structure" of the Isbell antennas, adding—

> "At first I was somewhat surprised that they worked but after thinking more about it and thinking back, then I was not surprised. At first I was surprised that it did work."

The trial court stated, "There can scarcely be more convincing proof that Isbell's invention met a 'long felt but unsolved need' in the antenna industry." That conclusion, on its face, is a non-sequitur. Referring to this testimony at a later point in its decision, the trial court characterized DuHamel's reaction as one of astonishment (App. 79), which that testimony obviously does not warrant.

Whatever DuHamel's reaction may have been, there is no evidence or finding that, despite his academic degree and distinguished work in sophisticated antenna research, he (or his co-worker, Ore) had any familiarity with the common, unsophisticated, skills found in the commercial television antenna business, or any knowledge of the prior art K.O. antenna for home television reception, or of the particular prior art antenna patents of record in this case. Accordingly, the record does not support even an inference that what was initially surprising to DuHamel or what he may have failed to accomplish while working in his particular environment, would not have been obvious "to a person having ordinary skill" in the commercial television antenna art and having all of the prior art before him. *Toledo Pressed Steel Co. v. Standard Parts*, 307 U.S. 350, 356 (1939).

Respondent, the University of Illinois Foundation, has made reference to alleged prior efforts and failures by others to achieve Isbell's results. However, the record reveals no failures and only the efforts of Isbell, who

quickly found that applying the known log-periodic formula to prior art dipole antennas produced the same results previously obtained by DuHamel and Ore.

Respondent has also argued that the art prior to Isbell led away from Isbell's patented antenna, citing *United States v. Adams et al.*, 383 U.S. 39 (1966). However, there is no evidence or finding to that effect. The only relevant evidence involves the work of DuHamel and Ore, which was shown to have proceeded successfully in the direction of Isbell's structure, rather than away from it, and to encourage further work in that direction.

Facts Relevant to Question II.

As found by the District Court below, the Isbell patent was applied for on May 3, 1960, but the invention of the patent was described in a publication (DX 8, A. 500, A. 213) printed at the instance of the University of Illinois and received at the Publications Office of the Electrical Engineering Research Laboratory on April 30, 1959, more than one year before the application for the Isbell patent (A. 79-80). The circumstances are summarized briefly in the decision of the District Court below as follows (A. 80):

> "The evidence which tends to support the defendant's position on the question of publication is the testimony of Miss Marjorie Johnson in the *Winegard* trial, of record in this case by stipulation. Miss Johnson, whose formal position with the University of Illinois in 1959 was Technical Editor of the Electrical Engineering Research Department, was responsible for distributing Electrical Engineering Laboratory publications, such as the quarterly reports. As part of her duties, Miss Johnson also kept copies of such publications in a 'library' of sorts, where, because there were no supervisory personnel, materials

were kept in locked cabinets and were generally obtained by request from a member of the publications staff having a key. Miss Johnson testified that the quarterly report involved here was in the publications office on April 30, 1959, and was therefore 'available for distribution upon request on that date,' although they were not actually distributed to persons on the distribution list until May 5, 1959."

The District Court below summarized the effect of Miss Johnson's testimony as follows (A. 80):

"If Miss Johnson were truly a librarian and the document had been available in a genuine library, even a very small or a highly specialized library, this court would be compelled by the weight of authority to hold that such availability constituted 'publication' within the meaning of § 102. See, e.g., *Hamilton Laboratories, Inc. v. Massengill*, 111 F.2d 584 (6th Cir. 1940)."

In holding that the facts did not constitute "publication" within the meaning of 35 U.S.C. 102, the District Court stated (A. 80-81):

"However, the court finds the nature of the availability of the document in this case was not sufficiently 'public' in nature to constitute the kind of publication intended by the act, at least until the report was distributed on May 5, 1959. In my view, the document had merely arrived from the printer and had come into the possession of the publications office on April 30, 1959, and *although there existed the rather remote possibility that a person knowing of the report might have asked for it and obtained a copy of it on that date*, this kind of availability did not represent 'publication.'" (Emphasis added.)

The Court of Appeals apparently also reviewed Miss Johnson's testimony and the testimony of her immediate

superior, Harold D. Lawler, and first resummarized the essential facts as follows (A. 56-57):

> "Isbell was associated with the Antenna Laboratory of the University of Illinois in performance of an Air Force contract. Reports were prepared and distributed from time to time pursuant to the contract. Quarterly Engineering Report No. 2 contained a description of Isbell's investigation of a type of log-periodic antenna, and it is conceded that if this report was published more than one year before May 3, 1960, the patent was invalid under 35 U.S.C. § 102(b). The printer delivered copies of the report to the office of Miss Johnson, technical editor of the Electrical Engineering Research Laboratory, April 30, 1959. Copies were mailed out of Miss Johnson's office, pursuant to the Air Force contract, to persons on the distribution list May 5."
>
> * * * * *
>
> "It appears that the Engineering Research Laboratory had a 'library' or reading room near Miss Johnson's office. It was unattended, and she had the keys to the cabinets in which materials were kept."

The Court of Appeals then continued (A. 57):

> "It is unlikely that a copy of the report in question reached the 'library' before May 3. Miss Johnson testified that a report would normally not be processed and made available as a library copy for a week or two after delivery by the printer."

However, that supplemental finding by the Court of Appeals (in the nature of mere speculation) had reference only to cataloging and physically placing the publication in question in the library. It neither contradicted nor modified the trial court's finding that the publication was available for reference in the Publications Office or "library of sorts," on request.

That availability of the publication for reference had been made clear by Miss Johnson's further testimony, which the trial court had apparently accepted, as follows (DX 22, pp. 216-217, R. 289):

"Q. And you previously indicated that when materials were delivered from the printer to your office, they were available for distribution on the date they were delivered to your office?

A. Yes.

Q. With the extra copies of this material that you had printed, and I specifically refer to Quarterly Report No. 2, would it have been available in your office for distribution upon request on the date it was delivered in your office?

A. Yes.

Q. If I had come to your office on April 30th, the date indicated on that requisition document, and requested a copy of Report No. 2, would I have been likely to have been delivered a copy?

A. Very likely.

Q. Would you say then, Miss Johnson, that Quarterly Engineering Report No. 2 was available in your office on April 30th, 1959 to the same extent as any other publication or report was available in your office either as a library reference or as an extra copy?

A. To my knowledge, yes.

Q. So that, to this extent, you would not distinguish the availability of this Report No. 2 from any other similar report then in your office?

A. No."

The Court of Appeals also noted (A. 57) testimony by Lawler (A. 329) that—

"A. * * * Quarterly reports normally were restricted in their *distribution*. *Distribution* had to be made, first of all, in accordance with the distribution list which the contractor would supply." (Emphasis added.)

Here that Court was led into error in suggesting that copies might not have been made available "to others" prior to such formal "distribution" under the contract. As Miss Johnson had testified, extra copies had been ordered at University expense "for our own purposes" (DX 22, p. 198) and were available for distribution "to others" as soon as received from the printer (DX 22, p. 198), i.e., April 30, 1959. This was clearly what the trial court found as a fact.

In this connection, Lawler testified further on cross-examination (A. 332)—

> "Q. Who, Mr. Lawler, had more detailed information with regard to the *availability* of and dates of publication of the Quarterly Reports, Defendant's Exhibits 7 and 8, you or Miss Marjorie Johnson? (Emphasis added.)
>
> A. She would probably have more detailed information on them, yes."

In concluding that the document in question was not a "publication" prior to May 3, 1959, the trial court explicitly relied on uncertainty of the proof that Miss Johnson was "truly a librarian," or that the "library" or "reading room" in question was "a genuine library," or that there had been more than a "remote" chance of anyone actually asking for and obtaining a copy of the document prior to May 3, 1959. As the trial court stated, but for those particular uncertainties, it would have been "compelled by the weight of authority to hold that such availability" of the document "constituted 'publication' within the meaning of § 102." Because of those uncertainties, it held that "the nature of the availability of the document in this case was not sufficiently 'public' in nature to constitute the kind of publication intended by the act, at least

until the report was distributed on May 5, 1959." (A. 80-81). The Court of Appeals affirmed (A.57).

That both of those courts erred as a matter of law is explained and supported in the second section of the ensuing argument.

ARGUMENT.

Question I.

By the foregoing statement of facts relevant to Question I, we have sought to crystallize how the conflicting Seventh and Eighth Circuit decisions on validity of the Isbell patent diverge primarily on the issue of whether or not "unpredictability," in and of itself, can negate "obviousness" as the test of patentability under 35 U.S.C. 103.[5]

The issue thus presented was decided by the Supreme Court prior to the present patent statute in *Mandel Bros., Inc. v. Wallace*, 335 U.S. 293, 295-296 (1948). In that case, involving a new use for an old chemical composition, it was argued that the prior art would not have led a skilled chemist to apply the old compound to the new use, so that the success of the patentee in doing so was "unpredictable by a skilled chemist" and, therefore, patentable. In ruling otherwise, the Supreme Court stated:

> "But we think that the state of the art was plainly sufficient to demonstrate to any skilled chemist searching for an anti-corrosive agent that he should make the simple experiment that was made here. * * * It is not surprising therefore that after experimenting

---

[5] To the extent that the courts of the Seventh Circuit attached significance to DuHamel's failure to achieve Isbell's particular structure and to his initial surprise that Isbell's antenna worked, that, in itself, was error as the Supreme Court has held. *Toledo Pressed Steel Co. v. Standard Parts, supra.*

with various standard alkalies in an effort to find a corrosion inhibitor that would not greatly reduce acidic astringency, the patentees promptly turned to urea. Their success was immediate.

"As the United States Court of Appeals for the Second Circuit pointed out when this patent was before it: '* * * skillful experiments in a laboratory, in cases where the principles of the investigations are well known, and the achievement of the desired end requires routine work rather than imagination, do not involve invention.' "

The present patent statute has, since that decision, prescribed the "obviousness" test of patentability in such situations, and no decision by the Supreme Court appears to have been rendered on a similar set of facts since that time. However, other courts have rendered such decisions, arriving at the same conclusion that patentability is not imparted to the results of routine investigations merely because success is unpredictable where the direction such investigation should take was sufficiently pointed out by the prior art to make it obvious to try the particular thing sought to be patented.

In 1961, the Court of Customs and Patent Appeals considered the question with which we are concerned and rendered a decision that has since become a landmark case. *Application of Moreton*, 288 F.2d 940, 943-944 (CCPA, 1961). Without citing any prior authority, that court reached the result of the Supreme Court's decision in *Mandel Bros. v. Wallace, supra.* In commenting on the argument that unpredictability negates obviousness, the Court of Customs and Patent Appeals stated—

"What this amounts to is an argument that if one slavishly following the prior art, albeit with a little educated imagination, will sometimes succeed and sometimes fail, then he is always entitled to a pat-

ent in case of success. This is not the intention behind 35 U.S.C. Sec. 103. Obviousness does not require absolute predictability. Where, as here, the knowledge of the art clearly suggests a certain class of compounds, materials actually known by the term 'viscosity improving agents,' as useful to improve the viscosity index of a certain group of hydraulic fluid lubricants, the mere possibility of failure does not render their successful use 'unobvious.'

"Appellant has not shown the production of anything unexpected here."

Since its decision in *Application of Moreton*, supra, the Court of Customs and Patent Appeals has repeatedly considered the same question and has consistently followed and cited that prior decision wherever the prior art taught a line of routine investigation to be followed and sufficiently suggested trying the particular thing sought to be patented to render it obvious to investigate its operability. See, for example, *Application of Pantzer*, 341 F.2d 121, 126 (CCPA, 1965); *Application of Wilson*, 368 F.2d 269, 271 (CCPA, 1966); *Application of Chi K. Dien*, 371 F.2d 886, 887 (CCPA, 1967). See, also, *In re Wietzel et al.*, 39 F.2d 669, 672 (CCPA, 1930) rendered long prior to the *Moreton* decision and prior to the present patent act, reaching the same result on the same line of reasoning and quoting with approval from the Patent Office Board of Appeals as follows:

"And, where there is no real reason to suppose that the result would not be produced there is no invention in trying it and finding out that the process is successful."

In its brief before the Seventh Circuit Court of Appeals, Respondent, the University of Illinois Foundation, cited *Application of Tomlinson*, 363 F.2d 928, 931 (CCPA, 1966) in which the Court of Customs and Patent Ap-

peals refused to apply and drew a distinction from its earlier decision in the *Moreton* case. However, the distinction involved the extent to which the prior art suggested the line of investigation to be pursued and the particular kinds of things to be tested. Nothing in the *Tomlinson* decision indicates that the court questioned the soundness of the doctrine announced by it in the *Moreton* decision.

Similarly, the decision by the Court of Customs and Patent Appeals in *Application of Miegel and Verbanc*, 404 F.2d 378 (CCPA, 1968) turned on the sufficiency of the prior art to bring the applicants under the *Moreton* doctrine, the majority holding that *Moreton* applied and was controlling. A dissent by Judge Rich disagreed only because he felt that the results obtained by the applicant were unexpectedly superior to results obtained by the prior art (not true in the case of Isbell's results). From this and related considerations, he felt that the prior art teachings would not have led one to try the particular solution to a new problem for which the applicants were seeking a patent.

Other courts have applied the reasoning and results of the Court of Customs and Patent Appeals decisions in the *Moreton* and subsequent cases reviewed above. The District Court for the District of Columbia first did so in *Hedman, et al. v. Commissioner of Patents*, 253 F. Supp. 515, 520 (DC, DC, 1966), and shortly thereafter in *Clinical Products, Limited v. Commissioner of Patents*, 255 F. Supp. 151, 152 (DC, DC, 1966), drawing the important distinction between any requirement of absolute predictability and the "paramount rule of 'reasonably based predictions.'"

The District Court for the Northern District of Illinois, in which the present case originated, faced the same problem in *LaMaur, Inc. v. DeMert & Dougherty, Inc.*,

et al., 265 F. Supp. 961, 977 (DC, N.D. Ill., 1965), aff'd. 152 USPQ 163 (7th Cir., 1966). Citing both the Supreme Court decision in *Mandel Bros., Inc. v. Wallace, supra*, and the Court of Customs and Patent Appeals decision in *Application of Moreton, supra*, it reached the same result, holding that obviousness was not negated by the necessity for conducting a single and obvious experiment to establish that a known film-forming compound was compatible with other ingredients of a patented hair spray and, therefore, that it could be used to advantage in the patented composition.

As is evident from the summary of the prior art in the foregoing review of the Facts Relevant to Question I, the DuHamel and Ore article (DX 6) and their patent (DX 14) not only taught the direction of the routine investigations required to arrive at Isbell's structure, but produced a number of *successful* log-periodic antennas that carried the investigation almost to that structure, itself. Their success (not failure) clearly indicated that the investigation should be continued further in the same direction, as by applying the log-periodic formula to the proportioning of the broadband dipole antennas of the Katzin patent (DX 3) and of the K.O. antenna (DX 4). Rather than discouraging such further work in that direction, the reasonable probability of continued success in doing so was demonstrated.

As the trial and appellate courts of the Eighth Circuit held, one skilled in the art having the prior art, broadband, dipole antennas before him, along with the prior art DuHamel and Ore publication, should reasonably have expected the former to be rendered more frequency independent by proportioning the dipole lengths and spacings according to the log-periodic formula. At the very least, it should have been obvious to such a person to take that

simple step and test the resulting antenna despite the fact that success was not predictable with any certainty. By the reasoning of *Mandel Bros. v. Wallace* and of the other later decisions on the same question under the present patent statute, the result of such an obvious further step should also be obvious under 35 U.S.C. 103.

With the additional prior art patent to DuHamel and Ore, teaching that the angle psi in Figure 2, for all of the similar antennas disclosed, could be reduced to 0°, the Seventh Circuit courts were shown that DuHamel and Ore had even more closely approached the precise structure claimed by Isbell. What little had been left to the imagination of one skilled in the antenna art was thus further reduced by the record before the latter courts. Under the authority of the cases reviewed above, it is respectfully submitted that they erred as a matter of law in differing from the conclusion of the Eighth Circuit Courts, whether solely or only partly because Isbell's success was unpredictable.

Question II.

As is clear from the foregoing summary of the Facts Relevant to Question II, Quarterly Engineering Report No. 2 (DX 8) described the invention of the Isbell patent so as to invalidate it under 35 U.S.C. 102(b) if it was published before May 3, 1959. Printed copies of the report were delivered to and available at the Publications Office of the Electrical Engineering Research Laboratory at the University of Illinois by April 30, 1959, and were available on that date, and thereafter in an adjacent "library" or "reading room," upon request of either Miss Johnson, Technical Editor of the Publications Office, who was in charge, or a member of her staff.

As the District Court expressly held (A. 80), it "would have been compelled by the weight of authority to hold that such availability constituted 'publication' within the meaning of § 102" if—

a. The Publications Office and adjacent library or reading room were "a genuine library," and

b. Miss Johnson had been "truly a librarian," and

c. There had been more than a "remote possibility" that a person knowing of the report might have asked for it and obtained a copy of it between April 30 and May 3, despite its clear availability for that purpose.

The question presented is whether or not, under those circumstances, the courts of the Seventh Circuit erred as a matter of law in holding that the report was not a "publication" within the meaning of § 102 before May 3, 1959.

It is respectfully submitted that the availability of Quarterly Engineering Report No. 2 more than one year before the application for the Isbell patent in suit on May 3, 1960, constituted "publication" under the law.

An early decision, *Cottier, et al. v. Stimson, et al.*, 20 Fed. 906 (Cir. Ct., D. Ore., 1884), set forth the Court's views as to the general requirements for a "publication" under the patent law. In that decision (p. 910), the Court said:

> "In Walk. Pat. 56, it is said that a 'printed publication is anything which is printed, and, without any injunction of secrecy, is distributed *to any part of the public in any country. Indeed, it seems reasonable that no actual distribution need occur, but that exposure of printed matter for sale is enough to constitute a printed publication.*'

"But something besides printing is required. *The statute goes upon the theory that the work has been made accessible to the public, and that the invention has thereby been given to the public, and is no longer patentable by any one. Publication means put into general circulation or on sale, where the work is accessible to the public.* See Reeves v. Keystone Bridge Co. 5 Fisher, 467." (Emphasis added)

In brief, that decision held that a printed work is a "printed publication" under the law when it is *accessible without an injunction of secrecy to any part of the public.* This accessibility to the public can occur in a number of different ways that have been specifically considered by the courts.

One of the common ways in which a printed work is made accessible to the public is by placing a copy in a library. Another early decision, *John Crossley & Sons v. Hogg,* 83 Fed. 488 (Cir. Ct., D. Mass., 1897), held that publication had been established by proof that *a single copy of a book* was received in a library and that such publication was sufficient to bar the grant of a valid patent.

There has been no requirement that members of the public actually used the printed copy contained within a library, apparently on the logical theory that its availability begins when it is *received* by the library, and it is the act and intent of making it available that should be binding on an inventor and those in privity with him. Thus, the Patent Office Board of Appeals, in *Gulliksen v. Halberg v. Edgerton v. Scott,* 75 USPQ 252, 257 (1937), held the following in a case involving the deposit of a thesis in a college library:

"Since both affidavits referred to above clearly show that the thesis was *received* September 25, 1929,

it is held that the dates when the same was bound or indexed is of no importance for the thesis became *available to the public as soon as received in the library.*" (Emphasis added)

Consistently with such a theory, the Sixth Circuit Court of Appeals held in *Hamilton Laboratories, Inc. v. Massengill,* 111 F.2d 584, 585 (1940):

"* * * the Weed thesis is in the prior art and marks a step in its development since it was *put on file in the library of the college,* available to students there and to other libraries having exchange arrangements with Iowa State. John Crossley and Sons v. Hogg, C.C., 83 Fed. 488, 490; Britton v. White Mfg. Co., C.C., 61 Fed. 93, 95. *We think intent that the fruits of research be available to the public is determinative of publication under the statute* * * *." (Emphasis added.)

Robinson, an early, eminent patent text author,[6] related intent to the act of publication as follows:

"A work of public character is such a book or other printed document as is intended and employed for the communication of ideas to persons in general, as distinguished from particular individuals. Private communications, although printed, do not come under this description, whether designed for the use of single persons or of a few restricted groups of persons." (§ 326)

* * * * *

"The publication must not only be intended for the public * * *. [I]t must have been actually published in such a manner that anyone who chooses may avail himself of the information it contains. [T]he deposit of a single copy in a library to which the public have or can obtain admission places the work within the reach of all." (§ 327)

---

[6] W. Robinson, "Patents," § 326, 327 (1890).

Recent decisions have followed and further clarified the foregoing statements of the law. For example, the sufficiency of the deposit in a library of a single copy of printed matter and the immateriality of the obscurity of the library were commented on by the Court of Customs and Patent Appeals (while deciding that material on microfilm is not "printed" within the meaning of the patent law) in the case of *In re Tenney, Frank and Knox,* 254 F.2d 619, 624-627 (1958). In that case, the Court observed—

> "The essence of all we have quoted is that, in consideration for the patent grant, something must be given to the public which it did not have before (albeit that the enjoyment of this 'something' may be postponed for 17 years). If the public is already possessed of that 'something,' or *if it is accessible to the public,* there is a failure of consideration and no patent may be granted." (Emphasis added.)

Explaining what "accessible to the public" means, the Court stated further (at 254 F.2d 626-627)—

> "But though the law has in mind the *probability* of public knowledge of the contents of the publication, *the law does not go further and require that the probability must have become an actuality.* In other words, once it has been established that the item has been both printed and published, it is not necessary to further show that any given number of people actually saw it or that any specific number of copies have been circulated. The law sets up a *conclusive presumption* to the effect that the public has knowledge of the publication when a *single printed* copy is proved to have been so published. See Evans v. Eaton, 1818, 3 Wheat. 454, 514, 4 L.Ed. 433; Curtis, Law of Patents, pp. 500-03 (4th ed. 1873)." (Emphasis added.)

* * * * *

> "It is no doubt true that our present law is anomolous, as evidenced by our conclusion that a microfilm is not 'printed.' A foreign patent file, laid open for public inspection, is not a printed publication because typewritten, while a printed publication available to the public only in a Southern Rhodesian library would be."

Still more recently, the District Court for the Southern District of California held that the filing of a copy of a thesis in a college library on October 9, 1950, barred a patent applied for October 30, 1951 (21 days over the permissible one year). *Indiana General Corp. v. Lockheed Aircraft Corp.*, 249 F. Supp. 809, 815, 816 (1966). In that decision, the Court cited the *Hamilton Laboratories v. Massengill* case, *supra*, as an authority "squarely in point."

About the same time, the District Court for the Southern District of New York (while denying a motion for summary judgment because of unresolved questions of fact in the particular case) reviewed the same and related questions of law in some detail in *I. C. E. Corporation, et al. v. Armco Steel Corporation*, 250 F. Supp. 738, 743 (1966). In doing so, it stated its conclusion that a " 'printed publication' as contemplated by Congress in 35 U.S.C. 102"—

> "can include a document printed, reproduced or duplicated by modern day methods, including microfilming, upon a satisfactory showing that such document has been disseminated or otherwise *made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it and recognize and comprehend therefrom the essentials of the claimed invention without need of further research or experimentation.*" (Emphasis added.)

The foregoing decisions involving deposit in a library make several points clear on which there appears to be no conflict. Only a single copy need be deposited. It is the date of receipt by the library that determines the date of publication, not the date when the work was cataloged or put on a reference shelf, since the author has thus put the work out of his control with the intent that it be available to the public. It is immaterial how small or obscure the library may be, so long as it is available to members of the public who may happen to look for it; and the chances that anyone may have looked for it there on that date are immaterial.

As the first of the cited decisions also notes (along with others unnecessary to cite here) putting the work on sale is a publication of the work, *without regard to the date of first actual sale.*

From all of the cited authorities, a principle is clear: Publication occurs by the act of exposing the work anywhere that a member of the public, without an injunction of secrecy indicating a contrary intention, could either read or secure a copy if he wished to do so. Persons having a particular interest in the subject matter of the work being the class of persons with whom 35 U.S.C. 102(b) is concerned in this regard, such availability to any of that class of persons, without limitation to specific persons for purposes of secrecy, should suffice as constituting exposure to the public within the clear meaning of the decisions interpreting that law. Thus, it should be immaterial that only students, faculty, and staff of a university, for example, may have such unrestricted access, or only the members of a professional society, or the like.

Obviously, the controlling principle is not limited by the dictionary or official name given to the repository of one or more copies of the work, such as "library," or "pub-

lications office," or "book store," or the name given to the person in charge or to members of his staff, such as "librarian."

Looking at principle, rather than mere words or form, it seems evident beyond logical argument, that Quarterly Engineering Report No. 2 (DX 8) in this case became a publication on April 30, 1959, within the meaning of 35 U.S.C. 102(b). Such being the case, it is respectfully submitted that the courts below erred in failing to hold the Isbell patent invalid on that ground.

CONCLUSION.

It is respectfully urged that both Question I and Question II, above, be considered and that the decisions below be reversed by a holding that the Isbell patent in suit is invalid for each of the two main reasons presented, i.e.,–

1. Because the invention of the patent was obvious under 35 U.S.C. 103, and
2. because the invention of the patent was described in a printed publication more than one year before the application for the patent, in violation of 35 U.S.C. 102(b).

Respectfully submitted,

HAROLD F. MCNENNY,
JOHN F. PEARNE,

Attorneys for Amicus Curiae, The Finney Company.

Of Counsel:

MCNENNY, FARRINGTON, PEARNE & GORDON,
920 Midland Building,
Cleveland, Ohio 44115,

WALTHER E. WYSS, ESQ.,
MASON, KOLEHMAINEN, RATHBURN & WYSS,
20 North Wacker Drive,
Chicago, Illinois 60606.